

In re Application of Ragsdale et al.  
Application No. 10/615,283

**AMENDMENTS TO THE CLAIMS**

1. (Currently Amended) A composition suitable for use in the manufacture of a polyurethane foam, the additive composition comprising:

- (a) a polyol,
- (b) a benzotriazole, the benzotriazole being present in the composition in an amount of about 0.5 to about 6.0 parts per hundred parts of the polyol (php),
- (c) a lactone-based antioxidant having a 3-phenylbenzofuran-2-one structure, the lactone-based antioxidant being present in the composition in an amount of about 0.05 to about 1.0 php,
- (d) a fourth component selected from the group consisting of:
  - (i) about 0.05 to about 1.0 php of a secondary phenylamine,
  - (ii) about 0.05 to about 2.0 php of a hindered phenol, and
  - (iii) a combination of about 0.05 to about 1.0 php of a secondary phenylamine and about 0.05 to about 2.0 php of a hindered phenol, and
- (e) an isocyanate.

2. (Previously Presented) The composition of Claim 1 wherein said fourth component is a secondary phenylamine.

3-16. (Canceled)

17. (Previously Presented) The composition of Claim 1 wherein said fourth component is a hindered phenol.

18. (Previously Presented) The composition of claim 1, wherein said fourth component is a combination of a secondary phenylamine and a hindered phenol.

19. (Currently Amended) The composition of claim 1, wherein said additive composition comprises:

- (a) a polyol,
- (b) about 0.8 to about 2.0 php of a benzotriazole,
- (c) about 0.1 to about 0.7 php of a lactone-based antioxidant having a 3-phenylbenzofuran-2-one structure,

In re Application of Ragsdale et al.  
Application No. 10/615,283

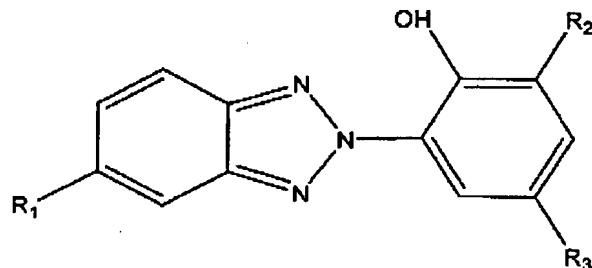
- (d) a fourth component comprising:
  - (i) about 0.1 to about 0.5 php of a secondary phenylamine, and
  - (e) (ii) about 0.1 to about 1.5 php of a hindered phenol, and
  - (f) (e) an isocyanate.

20. (Currently Amended) The composition of claim 19, wherein said additive composition comprises:

- (a) a polyol,
- (b) about 0.8 to about 2.0 php of a benzotriazole,
- (c) about 0.15 to about 0.3 php of a lactone-based antioxidant having a 3-phenylbenzofuran-2-one structure,
- (d) a fourth component comprising:
  - (i) about 0.1 to about 0.5 php of a secondary phenylamine, and
  - (e) (ii) about 0.25 to about 0.65 php of a hindered phenol, and
  - (f) (e) an isocyanate.

21. (Previously Presented) The composition of claim 1 wherein said benzotriazole conforms to the structure of Formula (I)

(I)

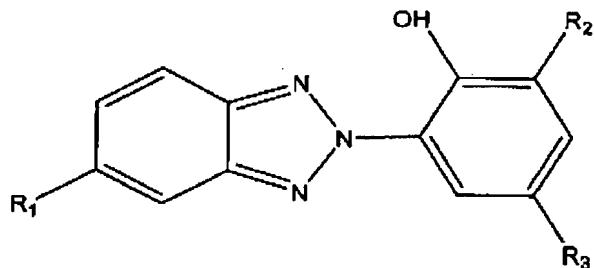


wherein R<sub>1</sub>, R<sub>2</sub>, and R<sub>3</sub> are individually selected from the group consisting of hydrogen, groups conforming to the formula C<sub>x</sub>H<sub>y</sub>O<sub>z</sub>, where x, y, and z are from 0 to 30, and halogens.

22. (Previously Presented) The composition of claim 19 wherein said benzotriazole conforms to the structure of Formula (I)

**In re Application of Ragsdale et al.  
Application No. 10/615,283**

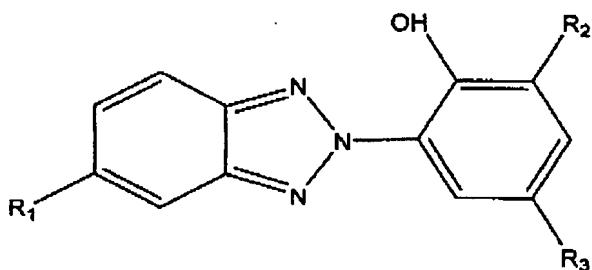
(I)



wherein R<sub>1</sub>, R<sub>2</sub>, and R<sub>3</sub> are individually selected from the group consisting of hydrogen, groups conforming to the formula C<sub>x</sub>H<sub>y</sub>O<sub>z</sub>, where x, y, and z are from 0 to 30, and halogens.

**23. (Previously Presented) The composition of claim 20 wherein said benzotriazole conforms to the structure of Formula (I)**

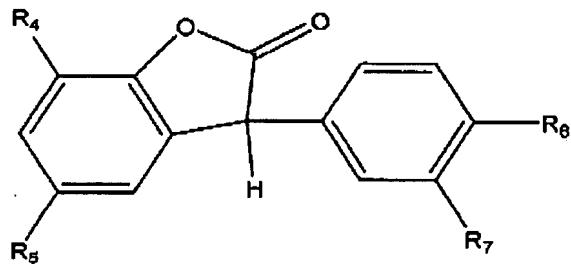
(I)



wherein R<sub>1</sub>, R<sub>2</sub>, and R<sub>3</sub> are individually selected from the group consisting of hydrogen, groups conforming to the formula C<sub>x</sub>H<sub>y</sub>O<sub>z</sub>, where x, y, and z are from 0 to 30, and halogens.

**24. (Previously Presented) The composition of claim 1 wherein said lactone-based antioxidant conforms to the structure of Formula (II)**

(II)

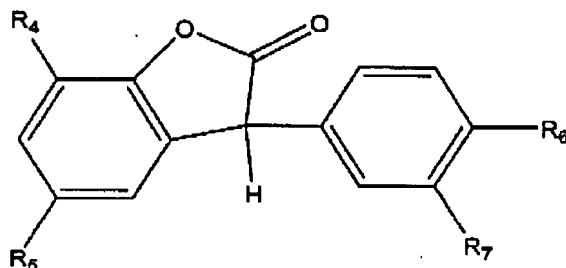


In re Application of Ragsdale et al.  
Application No. 10/615,283

wherein R<sub>4</sub>, R<sub>5</sub>, R<sub>6</sub>, and R<sub>7</sub> are individually selected from the group consisting of hydrogen and C<sub>1-30</sub> alkyl groups.

25. (Previously Presented) The composition of claim 19 wherein said lactone-based antioxidant conforms to the structure of Formula (II)

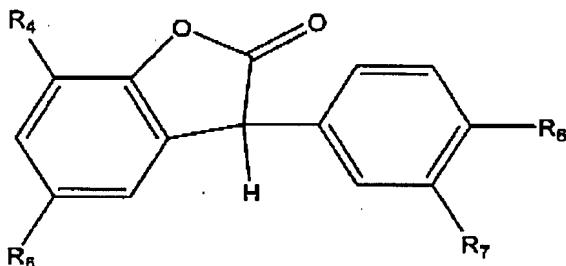
(II)



wherein R<sub>4</sub>, R<sub>5</sub>, R<sub>6</sub>, and R<sub>7</sub> are individually selected from the group consisting of hydrogen and C<sub>1-30</sub> alkyl groups.

26. (Previously Presented) The composition of claim 20 wherein said lactone-based antioxidant conforms to the structure of Formula (II)

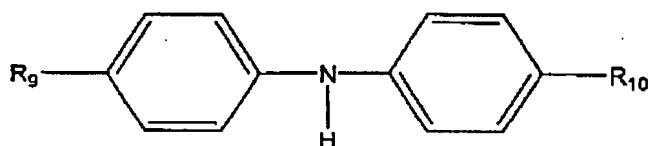
(II)



wherein R<sub>4</sub>, R<sub>5</sub>, R<sub>6</sub>, and R<sub>7</sub> are individually selected from the group consisting of hydrogen and C<sub>1-30</sub> alkyl groups.

27. (Previously Presented) The composition of claim 1 wherein the secondary phenylamine conforms to the structure of Formula (IV)

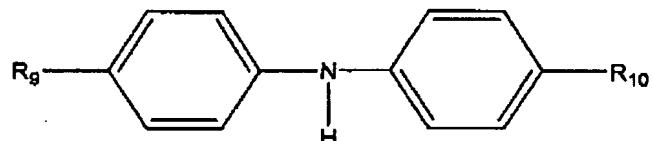
(IV)



In re Application of Ragsdale et al.  
Application No. 10/615,283

wherein R<sub>9</sub> and R<sub>10</sub> are individually selected from the group consisting of hydrogen, groups conforming to the formula C<sub>x</sub>H<sub>y</sub>O<sub>z</sub>, where x, y, and z are from 0 to 30, and halogens.

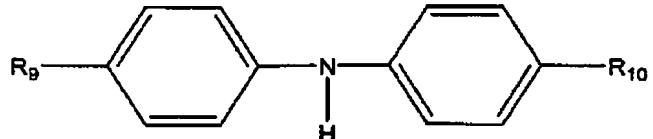
28. (Previously Presented) The composition of claim 19 wherein the secondary phenylamine conforms to the structure of Formula (IV)  
(IV)



wherein R<sub>9</sub> and R<sub>10</sub> are individually selected from the group consisting of hydrogen, groups conforming to the formula C<sub>x</sub>H<sub>y</sub>O<sub>z</sub>, where x, y, and z are from 0 to 30, and halogens.

29. (Previously Presented) The composition of claim 20 wherein the secondary phenylamine conforms to the structure of Formula (IV)

(IV)

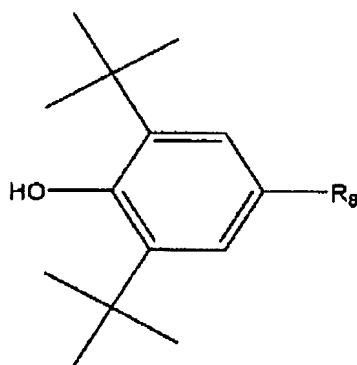


wherein R<sub>9</sub> and R<sub>10</sub> are individually selected from the group consisting of hydrogen, groups conforming to the formula C<sub>x</sub>H<sub>y</sub>O<sub>z</sub>, where x, y, and z are from 0 to 30, and halogens.

30. (Previously Presented) The composition of claim 1 wherein the hindered phenol conforms to the structure of Formula (III)

In re Application of Ragsdale et al.  
Application No. 10/615,283

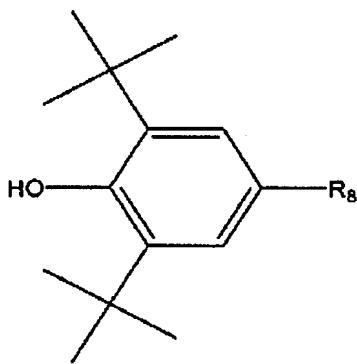
(III)



wherein R<sub>8</sub> is selected from the group consisting of hydrogen, groups conforming to the formula C<sub>x</sub>H<sub>y</sub>O<sub>z</sub>, where x, y, and z are from 0 to 30, and halogens.

31. (Previously Presented) The composition of claim 19 wherein the hindered phenol conforms to the structure of Formula (III)

(III)

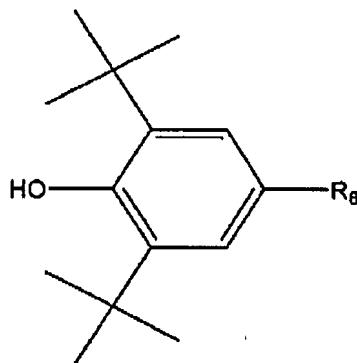


wherein R<sub>8</sub> is selected from the group consisting of hydrogen, groups conforming to the formula C<sub>x</sub>H<sub>y</sub>O<sub>z</sub>, where x, y, and z are from 0 to 30, and halogens.

32. (Previously Presented) The composition of claim 20 wherein the hindered phenol conforms to the structure of Formula (III)

In re Application of Ragsdale et al.  
Application No. 10/615,283

(III)



wherein R<sub>8</sub> is selected from the group consisting of hydrogen, groups conforming to the formula C<sub>x</sub>H<sub>y</sub>O<sub>z</sub>, where x, y, and z are from 0 to 30, and halogens.

33. (Previously Presented) A composition comprising:

- (a) a polyol,
- (b) a benzotriazole,
- (c) a lactone-based antioxidant having a 3-phenylbenzofuran-2-one structure, and
- (d) a fourth component selected from the group consisting of secondary phenylamines, hindered phenols, and combinations thereof, and
- (e) an isocyanate.

34. (Previously Presented) The composition of claim 33, wherein the composition comprises:

- (a) the polyol,
- (b) the benzotriazole in an amount of about 0.5 to about 6.0 parts per hundred parts of the polyol (php),
- (c) the lactone-based antioxidant in an amount of about 0.05 to about 1.0 php,
- (d) a fourth component selected from the group consisting of:
  - (i) about 0.05 to about 1.0 php of a secondary phenylamine,
  - (ii) about 0.05 to about 2.0 php of a hindered phenol, and
  - (iii) a combination of about 0.05 to about 1.0 php of a secondary phenylamine and about 0.05 to about 2.0 php of a hindered phenol, and
- (e) an isocyanate.